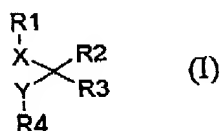


Please amend the application as follows:

In the claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (currently amended) A compound of general Formula I



or a pharmaceutically acceptable salt or solvate thereof, or a solvate of such a salt,

wherein:

R<sub>1</sub> is selected from the group consisting of:

C<sub>2</sub>-C<sub>6</sub> alkyl, substituted with one or more basic groups, wherein the conjugate acid of said basic group has a pK<sub>a</sub> of from 1 to 15;

cycloalkyl, substituted with one or more basic groups, wherein the conjugate acid of said basic group has a pK<sub>a</sub> of from 1 to 15;

six-membered heterocyclcyl containing a single heteroatom, which heteroatom is nitrogen, and substituted with one or more basic groups, whercin the conjugate acid of said basic group has a pK<sub>a</sub> of from 1 to 15;

and aryl, substituted with one or more basic groups, wherein the conjugate acid of said basic group has a pK<sub>a</sub> of from 1 to 15;

R<sub>2</sub> is selected from the group consisting of H, methyl, halogen, and hydroxy;

R<sub>3</sub> is selected from the group consisting of COOR<sub>5</sub>, SO(OR<sub>5</sub>), SO<sub>3</sub>R<sub>5</sub>, P=O(OR<sub>5</sub>)<sub>2</sub>, B(OR<sub>5</sub>)<sub>2</sub>, P=OR<sub>5</sub>(OR<sub>5</sub>), tetrazole, and a carboxylic acid isostere;

R<sub>4</sub> represents a  $\begin{array}{c} \text{O}-\text{R}_5 \\ | \\ -\text{P}-\text{R}_6 \\ || \\ \text{O} \end{array}$  -group;

R<sub>5</sub> is H, C<sub>1</sub>-C<sub>6</sub> alkyl, or aryl;

R<sub>6</sub> is C<sub>1</sub>-C<sub>6</sub> alkyl, aryl, cycloalkyl, or an optionally N-substituted

H<sub>2</sub>N-C(Z)-CONH-C(Z)- or H<sub>2</sub>N-C(Z)- group;

X is C(Z)<sub>2</sub>;

Y is selected from the group consisting of O and S; and

Z is independently selected from the group consisting of H, C<sub>1</sub>-C<sub>6</sub> alkyl, aryl, and cycloalkyl, ~~and heterocyclyl~~.

2. (previously presented) The compound according to claim 1, or a pharmaceutically acceptable salt or solvate thereof, or a solvate of such a salt,

wherein:

R<sub>1</sub> is selected from the group consisting of:

cycloalkyl, substituted with one or more basic groups,

wherein the conjugate acid of said basic group has a pKa of from 1 to 15; and

six-membered heterocyclyl containing a single heteroatom, which heteroatom is nitrogen, and substituted with one or more basic groups, wherein the conjugate acid of said basic group has a pKa of from 1 to 15;

R<sub>3</sub> is COOR<sub>5</sub>;

Y is O; and

Z is independently H or C<sub>1</sub>-C<sub>6</sub> alkyl.

3-26. (cancelled)

27. (previously presented) The compound according to claim 1 or a pharmaceutically acceptable salt or solvate thereof, or a solvate of such a salt,

wherein:

R<sub>6</sub> is optionally substituted by one or more selected from the group consisting of acyl, acylamino, C<sub>1</sub>-C<sub>6</sub> alkyl, alkylcarbamoyl, alkylthio, alkoxy, aroyl, aroylamino, aryloxy, arylthio, amidino, amino, aryl, carbamoyl, carboxy, cyano, cycloalkyl, formyl, guanidino, halogen, hydroxy, oxo, nitro, thio, Z<sub>2</sub>N-CO-O-, ZO-CO-NZ- and Z<sub>2</sub>N-CO-NZ-;

in which said C<sub>1</sub>-C<sub>6</sub> alkyl, cycloalkyl, and aryl are each optionally substituted by one or more selected from the group consisting of acyl, acylamino, C<sub>1</sub>-C<sub>6</sub> alkyl, alkylcarbamoyl, alkylthio, alkoxy, aroyl, aroylamino, aryloxy, arylthio, amidino, amino, aryl, carbamoyl, carboxy, cyano, cycloalkyl, formyl, guanidino, halogen,

hydroxy, oxo, nitro, thio,  $Z_2N-CO-O-$ ,  $ZO-CO-NZ-$  and  $Z_2N-CO-NZ-$ ; and

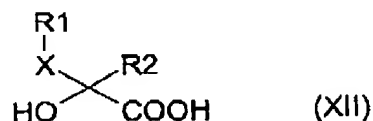
each Z, which is defined in claim 1, is independently and optionally substituted by one or more selected from the group consisting of acyl, acylamino,  $C_1-C_6$  alkyl, alkylcarbamoyl, alkylthio, alkoxy, aroyl, aroylamino, aryloxy, arylthio, amidino, amino, aryl, carbamoyl, carboxy, cyano, cycloalkyl, formyl, guanidino, halogen, hydroxy, oxo, nitro, thio,  $Z_2N-CO-O-$ ,  $ZO-CO-NZ-$  and  $Z_2N-CO-NZ-$ .

28. (previously presented) The compound according to claim 27 or a pharmaceutically acceptable salt or solvate thereof, or a solvate of such a salt, wherein:

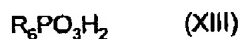
$R_6$  is optionally substituted by one or more selected from the group consisting of  $C_1-C_6$  alkyl, aryl and  $ZO-CO-NZ-$ ,

in which said  $C_1-C_6$  alkyl and aryl are each optionally substituted by one or more selected from the group consisting of aryl, oxo and  $ZO-CO-NZ-$ , and each Z, which is defined in claim 1, is independently and optionally substituted by aryl.

29. (previously presented) A process for the preparation of a compound according to any one of claims 1, 2, 27 and 28, wherein  $R_1$ ,  $R_2$ ,  $R_4$ ,  $R_5$ ,  $R_6$ ,  $X$  and  $Z$  are as defined in claim 1,  $R_3$  is  $\text{COOR}_5$ , and  $Y$  is  $O$ , comprising the step of:  
reacting a compound of Formula XII,



wherein  $X$ ,  $R_1$  and  $R_2$  are as defined in claim 1, with a compound of Formula XIII,



wherein  $R_6$  is as defined in claim 1, in the presence of a coupling reagent under standard conditions.

30. (previously presented) A pharmaceutical formulation comprising a therapeutically effective amount of a compound according to any one of claims 1, 2, 27 and 28 as active ingredient in combination with a pharmaceutically acceptable adjuvant, diluent, or carrier.

31. (previously presented) A method for inhibiting carboxypeptidase U, comprising administering an effective amount of a compound according to any one of claims 1, 2, 27 and 28.

32. (previously presented) A pharmaceutical formulation, comprising:

(i) a compound of Formula I as defined in any one of claims 1, 2, 27 and 28, or a pharmaceutically acceptable salt or solvate thereof, or a solvate of such a salt; and

(ii) one or more antithrombotic agents with a different mechanism of action from that of component (i),

in admixture with a pharmaceutically acceptable adjuvant, diluent, or carrier.

33. (previously presented) A method both for inhibiting carboxypeptidase U and for achieving an antithrombotic effect via a different mechanism, which method comprises administering a therapeutically effective total amount of:
- (i) a compound as defined in any one of claims 1, 2, 27 and 28, or a pharmaceutically acceptable salt or solvate thereof, or a solvate of such a salt, in admixture with a pharmaceutically acceptable adjuvant, diluent or carrier; and
- (ii) one or more antithrombotic agents with a different mechanism of action from that of component (i), in admixture with a pharmaceutically acceptable adjuvant, diluent, or carrier.

34. (previously presented) A method both for inhibiting carboxypeptidase U and for achieving an antithrombotic effect via a different mechanism, which method comprises administering the formulation according to claim 32.

35. (previously presented) The compound according to any one of claims 1, 2, 27 and 28, wherein the basic group is selected from the group consisting of amino, amidino, and guanidino.

36. (previously presented) The process according to claim 29, wherein the coupling reagent is selected from the group consisting of:

- (i) dicyclohexylcarbodiimide (DCC)/N,N-dimethyl amino pyridine (DMAP);
- (ii) (benzotriazol-1-yloxy)tripyrrolidinophosphonium hexafluorophosphate (PyBop)/ diisopropylethylamine (DIPEA); and
- (iii)  $\text{SOCl}_2$ .

37. (previously presented) The formulation according to claim 32, wherein the antithrombotic agent with a different mechanism of action is selected from the group consisting of an antiplatelet agent, thromboxane receptor inhibitor, synthetase inhibitor, fibrinogen receptor antagonist, prostacyclin mimetic, phosphodiesterase inhibitor, and an ADP-receptor ( $\text{P}_2\text{T}$ ) antagonist.

38. (previously presented) The method according to claim 33, wherein the antithrombotic agent with a different mechanism of action is selected from the group consisting of an antiplatelet agent, thromboxane receptor inhibitor, synthetase inhibitor, fibrinogen receptor antagonist, prostacyclin mimetic, phosphodiesterase inhibitor, and an ADP-receptor ( $\text{P}_2\text{T}$ ) antagonist.

39. (previously presented) A method for treatment of thrombosis and hypercoagulability, comprising administering to a patient in

need of such treatment an effective amount of a compound  
according to any one of claims 1, 2, 27 and 28.